

A6600

SUPRACURVE



User's Manual

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions before operating this apparatus.
2. Keep these instructions for future reference.
3. Heed all warnings to ensure safe operation.
4. Follow all instructions provided in this document.
5. Do not use this apparatus near water or in locations where condensation may occur.
6. Clean only with dry cloth. Do not use aerosol or liquid cleaners. Unplug this apparatus before cleaning.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED PERSONNEL



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

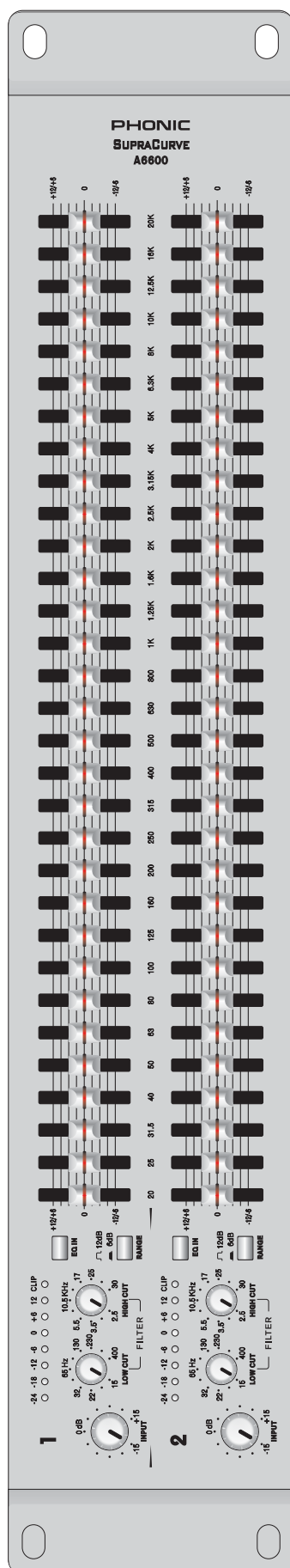


The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

CAUTION: Use of controls or adjustments or performance of procedures other than those specified may result in hazardous radiation exposure.





SUPRACURVE A6600

USER'S MANUAL

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INTRODUCTION

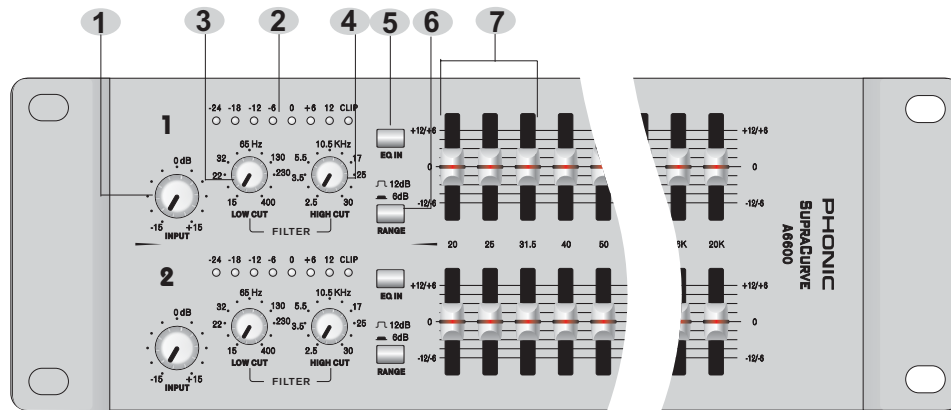
Congratulations on your purchase of the A6600 SUPERCURVE, a dual 31-band graphic equalizer. In order to get the best performance from your A6600 SUPERCURVE, please read this user's manual carefully and keep it for future reference.

FEATURES

- Extremely low noise, high-quality performance
- 30mm VR for precise adjustment
- Switchable boost/cut range: 6dB and 12dB
- EQ IN/OUT switch
- Center-dented sliders
- Illuminated buttons and faders
- +/-15dB input gain range for easy level matching
- 8-segment LED input level display with CLIP warning
- Dual variable 15Hz to 400Hz LOW CUT filter and 2.5KHz to 30KHz HIGH CUT filter
- Auto relay-controlled bypass
- Balanced inputs and outputs
- 1/4" TRS and XLR connectors
- Shielded toroidal power transformer for low noise interference

GETTING STARTED

- 1 Check the AC voltage before connecting the plug. The unit must be properly grounded to avoid electrical shock to the operator. Choose the main supply for the sound system with care, and do not share sockets or grounding with light dimmers.
- 2 Separate audio cables from dimmer wiring, using balanced lines wherever possible. If feasible, cross audio and lighting cables at right angles to minimize the possibility of interference. Keep unbalanced cables as short as possible.
- 3 Check your cables regularly and label each end for easy identification.
- 4 Before switching on the main power, set the input level control to its minimum setting. Doing so will prevent excessive noise caused by bad level adjustment, faulty wiring, defective cables, or bad connections.
- 5 Always turn the unit on before turning on the power amplifier; always turn it off after turning off the amplifier.
- 6 Always turn off the main power before connecting or disconnecting the unit.
- 7 Never use solvents to clean the unit. Clean the unit with a soft, dry cloth.



FRONT PANEL DESCRIPTION

The operations of channel 1 & channel 2 are exactly the same.

1 INPUT level control

The INPUT level control allows you to adjust the input signal level (volume).

2 LEVEL METER with CLIP LED

The LEVEL METER provides instant monitoring of output signal level. To avoid possible distortion, reduce the input level if the CLIP LED lights up. For the LED to blink briefly during the loudest parts of your program is acceptable; if it stays on for several seconds, however, distortion may begin to occur.

3 LOW CUT FILTER

The LOW CUT FILTER allows high frequencies to pass through unchanged while severely attenuating (cutting) very low frequencies. Use this switch to protect your audio system from damaging low-frequency transients (loud thumps).

4 HIGH CUT FILTER

The HIGH CUT FILTER allows low frequencies to pass through unchanged while effectively attenuating very high frequencies.

5 EQ IN button

Depress this button to activate the A6600; it will light up yellow. Release it to terminate all A6600 functions, providing an immediate comparison between the original sound and the sound as processed by the A6600.

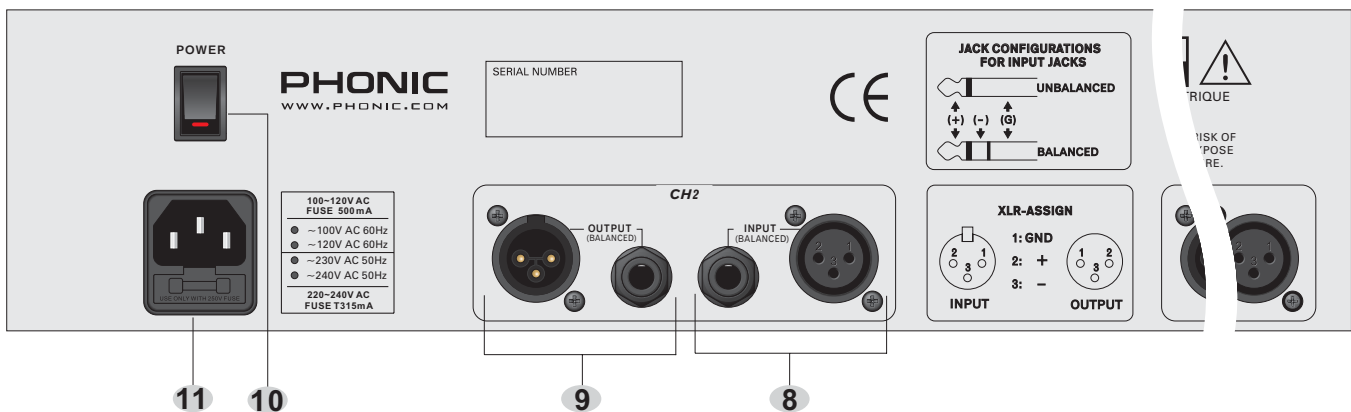
6 EQ RANGE selector button

One benefit of using a graphic equalizer is that the frequency sliders form a graphic depiction of the frequency response curve you have set. When the setting requirements are subtle, however, it may not be easy to identify the curve. If you encounter this difficulty, depress the EQ RANGE selector switch to increase the range of the level settings.

When depressed, the button will light up red and set the range at 6dB. When released, the same button will light up green and set the range at 12dB.

7 Illuminated frequency level slider

Moving the illuminated slider upward increases the level of the related frequency; moving it downward decreases the level of the related frequency.



REAR PANEL DESCRIPTION

The operations of channel 1 & channel 2 are exactly the same.

8 INPUT

Each channel has an XLR male connector and a balanced 1/4" jack for input connection.

9 OUTPUT

Each channel has an XLR female connector and a balanced 1/4" jack for output connection.

10 POWER switch

Use this switch to turn the A6600 on and off. Turn the A6600 on before turning on the power amplifier; doing so will prevent loud transients which can damage your speakers and create noises unpleasant for your audience.

11 AC power socket with fuse holder

Connect the supplied AC power cord to this socket, then insert the plug into a wall socket of suitable voltage. A blown fuse may be replaced only by a fuse of identical type and rating.

TYPICAL GRAPHIC EQUALIZER OPERATION

GENERAL TONE CONTROL

The graphic equalizer is a useful device for general tone shaping because it is simple and easy to adjust. The visual reference provided by the slide fader position gives an approximate idea of the frequency response generated: higher frequencies appear on the right, lower frequencies on the left. To use the equalizer, you must know the numerical frequency range of the tone you wish to produce.

Here is a frequency range chart for your reference -- it is a useful tool when first using a graphic equalizer. Use the range chart as a guide, then adjust by ear. Unfortunately, even a good equalizer cannot offer a complete solution when a room has severe inherent acoustic problems. Nor can equalization overcome the lack of sound clarity caused by rooms with unduly long reverberation times.

FEEDBACK CONTROL

In live performance applications, graphic equalization is almost always applied separately to the stage monitor or foldback system to reduce the level of those frequencies that would otherwise cause feedback problems. These problems arise from monitor positioning, sound reflected from the stage walls, and peaks in the frequency response curves of the monitor speaker system. A graphic equalizer can provide some control over moderate feedback problems, but it hasn't enough flexibility or resolution to remedy a severe feedback response. The best results are achieved by eliminating feedback points. One or two feedback points can be eliminated by adjusting the slide faders, but no more than 6dB should be cut. If you find feedback points covering many equalizer bands and cutting every affected band does not help, you must reduce the system gain. The combined use of a graphic equalizer for tone control and a parametric equalizer for feedback control is highly recommended.

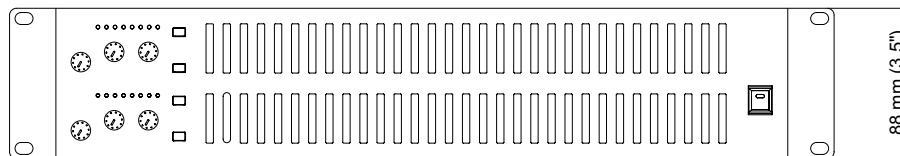
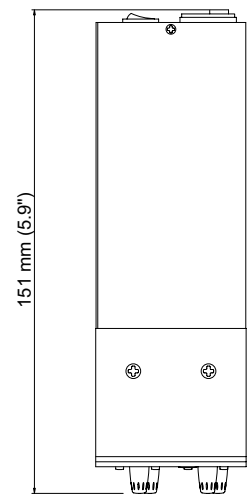
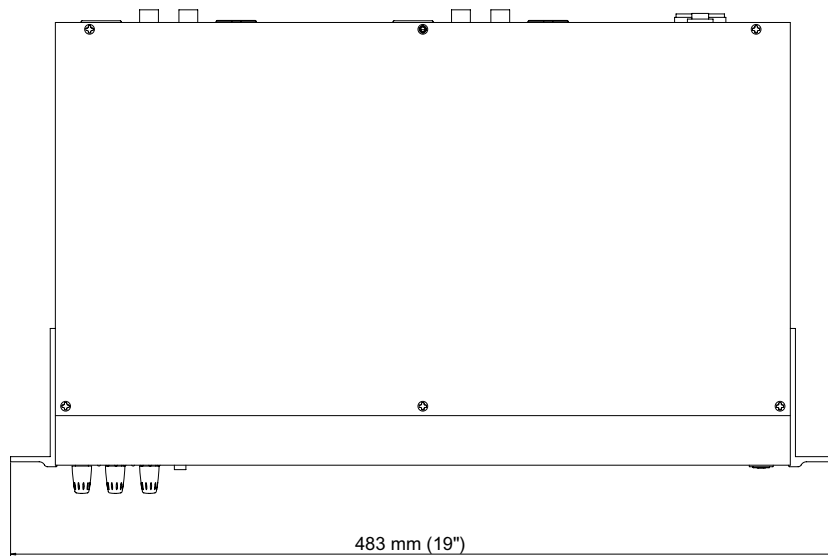
MIXER CHANNEL EQUALIZATION

Many mixers provide only simple equalization for individual channels. If your mixer has channel inserts, you can patch your equalizer into a channel that is being used for something important and use it to tailor the sound of this channel exactly as you want.

LARGE ROOM EQUALIZATION

Large rooms tend to suffer from multiple reflections with long time delays and long reverberation intervals -- factors which lead to reduced intelligibility and a generally muddy sound. As sound travels long distances, high frequencies attenuate more than low frequencies. In general, a large room benefits from some low frequency roll-off and some high frequency boost. Therefore, reducing the low frequency output may be advantageous in buildings made of concrete or stone, where much of the bass is reflected rather than absorbed. Rolling off the high frequency end above 5kHz may also contribute to a more natural sound. The shape of the optimal house curve varies according to the individual sound system and acoustic environment; a degree of experience is indispensable to achieving the best result.

DIMENSIONS



SPECIFICATIONS

INPUT

Connectors	XLR & 1/4" TRS balanced, line level (+4 dBu), RF filtered
Impedance	56k ohms
Maximum level	+24 dBu balanced and unbalanced

OUTPUT

Connectors	XLR & 1/4" TRS balanced
Impedance	100 ohms
Maximum level	+24 dBu

SYSTEM

Frequency Response	10 Hz to 35 kHz, +/- 3 dB 20 Hz to 20 kHz, +/- 0.25dB (flat) 20 Hz to 20 kHz, +/- 1 dB (max/min)
THD	0.004% typical at +4 dBu, 1 kHz
Noise	< -87 dB
Crosstalk	< -80 dB

FILTERS

Low-cut	15 Hz to 400 Hz variable, -18 dB/oct
High-cut	2.5 kHz to 30 kHz variable, -18 dB/oct

EQUALIZER

Center Frequency	ISO Standard 31-band, 1/3 octave, 20 Hz to 20 kHz
Range	+/- 6 dB or +/- 12 dB, selectable

CONTROLS & DISPLAY

Input	Adjusts the input gain
Low-Cut Filter	Determines the low-cut frequency
High-Cut Filter	Determines the high-cut frequency
EQ IN	Switches between EQ in and bypass
Range	Switches the boost/cut range between +/- 6 and +/- 12 dB
Input Level Meter	8-segment LED meter with clip indicator

POWER SUPPLY

Power Requirement	100-120 V, 200-240 V, AC 50/60 Hz
Power Consumption	15 W
Power Connector	Standard IEC receptacle
Fuse	100-120 V: 1 A / 250 V 200-240 V: 500 mA / 250 V

PHYSICAL

Enclosure	Steel housing with aluminum front panel
Dimensions (W x H x D)	483 x 88 x 151 mm (19 x 3.5 x 5.9 in.)
Net Weight	3.2 kg (6.9 lbs.)

APPENDIX

Phonic recommends the following books for those interested in advanced audio engineering and sound system operation:

- "Sound System Engineering" by Don and Carolyn Davis, Focal Press, ISBN: 0-240-80305-1
- "Sound Reinforcement Handbook" by Gary D. Davis, Hal Leonard Publishing Corporation, ISBN: 0-88188-900-8
- "Audio System Design and Installation" by Philip Giddings, Focal Press, ISBN: 0-240-80286-1
- "Practical Recording Techniques" by Bruce and Jenny Bartlett, Focal Press, ISBN: 0-240-80306-X
- "Modern Recording Techniques" by Huber & Runstein, Focal Press, ISBN: 0-240-80308-6
- "Sound Advice : The Musician's Guide to the Recording Studio" by Wayne Wadham, Schirmer Books, ISBN: 0-02-872694-4-0
- "Professional Microphone Techniques" by David Mills Huber, Philip Williams. Hal Leonard Publishing Corporation, ISBN: 0-87288-685-9
- "Anatomy of a Home Studio: How Everything Really Works, from Microphones to Midi" by Scott Wilkinson, Steve Oppenheimer, Mark Isham. Mix Books, ISBN: 091837121X
- "Live Sound Reinforcement: A Comprehensive Guide to P.A. and Music Reinforcement Systems and Technology" by Scott Hunter Stark. Mix Books, ISBN: 0918371074
- "Audiopro Home Recording Course Vol 1: A Comprehensive Multimedia Audio Recording Text" by Bill Gibson. Mix Books, ISBN: 0918371104
- "Audiopro Home Recording Course Vol. 2: A Comprehensive Multimedia Audio Recording Text" by Bill Gibson. Mix Books, ISBN: 0918371201

TO PURCHASE ADDITIONAL PHONIC GEAR AND ACCESSORIES

To purchase Phonic gear and optional accessories, contact any authorized Phonic distributor. For a list of Phonic distributors please visit our website at www.phonic.com and click on Get Gear. You may also contact Phonic directly and we will assist you in locating a distributor near you.

SERVICE AND REPAIR

Phonic has over 100 service centers worldwide. For replacement parts, service and repairs please contact the Phonic distributor in your country. Phonic does not release service manuals to consumers, and advice users to not attempt any self repairs, as doing so voids all warranties. You can locate a dealer near you at www.phonic.com.

WARRANTY INFORMATION

Phonic stands behind every product we make with a no-hassles warranty. Warranty coverage may be extended, depending on your region. Phonic Corporation warrants this product for a minimum of one year from the original date of purchase against defects in material and workmanship under use as instructed by the user's manual. Phonic, at its option, shall repair or replace the defective unit covered by this warranty. Please retain the dated sales receipt as evidence of the date of purchase. You will need it for any warranty service. No returns or repairs will be accepted without a proper RMA number (return merchandise authorization). In order to keep this warranty in effect, the product must have been handled and used as prescribed in the instructions accompanying this warranty. Any tempering of the product or attempts of self repair voids all warranty. This warranty does not cover any damage due to accident, misuse, abuse, or negligence. This warranty is valid only if the product was purchased new from an authorized Phonic dealer/distributor. For complete warranty policy information, please visit <http://www.phonic.com>.

CUSTOMER SERVICE AND TECHNICAL SUPPORT

We encourage you to visit our online help at <http://www.phonic.com/help/>. There you can find answers to frequently asked questions, tech tips, driver downloads, returns instruction and other helpful information. We make every effort to answer your questions within one business day.

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